



WATER RESOURCES, ACCOUNTABLE BUDGET REVIEW

NATURAL RESOURCES, AGRICULTURE, & ENVIRONMENTAL QUALITY APPROPRIATIONS SUBCOMMITTEE
STAFF: IVAN DJAMBOV

ISSUE BRIEF

This brief is intended to assist the members of the Natural Resources, Agriculture, and Environmental Quality Appropriations Subcommittee during the Accountable Budget Process. JR3-2 requires the Legislature to create a budget for a line item or a program by starting from zero and determining whether or to what extent to recommend funding be included in a budget for FY 2021.

The following is a list of questions the subcommittee members could ask when evaluating the programs and making decisions about the division:

1. *What are the statutory requirements?*

- a. Should the statute/scope of the entity be adjusted?
- b. Does each program have a mission, goals, and objectives that are meaningful and tied to the enabling statute?

2. *How well has this “investment” performed in the past? What are the goals for the future?*

- a. What value does this division/program add to society?
- b. Are there meaningful performance measures?
- c. How well do they tie to the organization’s mission, goals, and objectives?
- d. Are the targets reasonable?
- e. Are the results acceptable?

3. *What programs should be funded for FY 2021? How much?*

- a. Why is state government providing these services? Could this function be done by a local government or the private sector?
- b. What will happen if the division/program is eliminated or downsized? Who will notice? Who will be affected the most?
- c. Can the taxpayers' investment be reduced by implementing or increasing user fees?
- d. Should the funding mix be adjusted?
- e. Are some of the past building blocks no longer a high priority?
- f. Can some of the expenditures be reduced or eliminated?

The following sections are intended to provide background information about the division's:

1. [Enabling Authority](#)
2. [Performance Measures](#)
3. [Programs and FTEs](#)
4. [Funding](#)
5. [Spending](#)

For additional interactive online resources, click on the links below:

- [Compendium of Budget Information \(COBI\)](#),
- [Historic Trends of Funding, Expenditures, and FTEs](#),
- [Appropriated vs. Actual Comparison](#), and
- [State of Utah Budget, Data Viz.](#)

Enabling Authority

The governing statute for the Division of Water Resources is in [UCA 73](#). The division's mission is to plan, conserve, develop and protect Utah's water resources.

There are several statutory references in UCA 73 to entities that no longer exist, such as the Utah water and power board ([73-10-5/11](#)) and the Executive Secretary ([73-10-19](#)). There are also specific appropriations ([73-10-12/13](#)) that are no longer relevant. The Legislature should consider updating the division's statute.

Performance Measures

The 2019 Legislature included in [S.B. 5, Natural Resources, Agriculture, and Environmental Quality Base Budget](#) the following intent language regarding performance measures for the division:

The Legislature intends that the Department of Natural Resources report on the following performance measures for the Water Resources line item, whose mission is to "plan, conserve, develop and protect Utah's water resources:" (1) Water conservation and development projects funded (Target = 15), (2) Reduction of per capita M&I water use (Target = 25%), and (3) Percentage of precipitation increase due to cloud seeding efforts (Target = 7%) by October 31, 2020 to the Natural Resources, Agriculture, and Environmental Quality Appropriations Subcommittee.

Below are the measures' targets and results over time.

	FY 2018		FY 2019	FY 2020
	Target	Results	Target	Target
1. Water conservation and development projects funded	15	16	15	15
2. Reduction of per capita M&I water use	25%	27%	25%	25%
3. Precipitation increase due to cloud seeding efforts	7%	0%	7%	7%

The following are some concerns about the performance measures:

1. It is good to track the number of projects, but in addition, there should be an ongoing assessments and reporting on how successful these projects were and what difference they did make.
2. It is not clear from the second measure if the 25% is an annual reduction of water or a reduction from a particular point in time in the past. Also, if the results in FY 2018 were 27%, it is not clear why the targets for FY 2019 and FY 2020 remained at 25%.

Programs and FTEs

The following table lists the programs in the division with the FY 2018 actual amounts spent and the FTE count by program. The table also includes an assessment by the division leadership on how critical each program is to the mission of the division. It also identifies if the program is providing administrative support or directly serves the public and lists the statute references. For the mission, goals, objectives, and performance measures of each program, please see the section below the table.

Program Name	How critical to mission?	Type of Program	Mandate Status	Mandate Citation	State Funds	Other Funds	Total Funds	FTE
Administration	1-Fundamental	Admin. Support	State Statute	73-10-18/19	\$508,609	\$274,526	\$783,135	4
Board	1-Fundamental	Admin. Support	State Statute	73-10-1.5/6	\$31,493		\$31,493	0
Cloudseeding	3-Marginal	Direct Public Program	State Statute	73-15-1/8		\$234,951	\$234,951	0
Construction	1-Fundamental	Admin. Support	State Statute	73-10-8/13,21/26	\$4,655,937	\$2,333,108	\$6,989,045	17.5
Interstate Streams	1-Fundamental	Direct Public Program	State Statute	73-10-3, 73-12a-1/3,73-16-1/5,73-19-1/20	\$381,577		\$381,577	1
Water Resources Planning	1-Fundamental	Direct Public Program	State Statute	73-10-15/17,32	\$2,520,510	\$1,779,714	\$4,300,224	20.5
West Desert Pump Maintenance	4-Tangential	Direct Public Program	State Statute	73-23-1/6	\$5,488		\$5,488	0
Total					\$8,103,614	\$4,622,299	\$12,725,913	43

Programs' Mission, Goals, Objectives, and Performance Measures

Administration

Mission: Plan, conserve, develop and protect Utah's water resources.

Goals:

1. Ensure that staff has the direction needed.
2. Ensure staff has the resources needed.
3. Ensure the Division is operating within applicable statutes and rules.
4. Ensure the Division is working within its authorized budget.
5. Effectively work with other agencies, water suppliers and the public to provide assistance and leadership.

Objectives: Water Resources administration directs the orderly and timely planning, conservation, development, protection and preservation of Utah's water resources to meet the beneficial needs of the citizens of the state of Utah. This program consists of the Director's office and the financial section of the Division of Water Resources.

Performance Measures: none identified.

Ties to Statute: Statutes 73-10-1, 73-10-1.5, 73-10-18 and 73-10-19 provide direction for this program

Board

Mission: Authorize the use of funds for water projects, define state water policy, and develop a State Water Plan for Utah.

Goals: The Board of Water Resources has the responsibility of monitoring and developing state water policy, developing State Water Planning, Water Conservation and for administering the revolving loan funds. This program consists of eight Water Resources board members.

Objectives: The board shall have the following powers and duties:

- (1) To authorize studies, investigations, and plans for the full development, and utilization and promotion of the water and power resources of the state, including preliminary surveys, stream gauging, examinations, tests, and other estimates either separately or in consultation with federal, state and other agencies.
- (2) To enter into contracts subject to the provisions of this act for the construction of conservation projects which in the opinion of the board will conserve and utilize for the best advantage of the people of this state the water and power resources of the state, including projects beyond the boundaries of the state of Utah located on interstate waters when the benefit of such projects accrues to the citizens of the state.
- (3) To sue and be sued in accordance with applicable law.
- (4) To supervise in cooperation with the governor and the executive director of natural resources all matters affecting interstate compact negotiations and the administration of such compacts affecting the waters of interstate rivers, lakes and other sources of supply.
- (5) To contract with federal and other agencies and with the National Reclamation Association and to make studies, investigations and recommendations and do all other things on behalf of the state for any purpose which relates to the development, conservation, protection and control of the water and power resources of the state.
- (6) To consult and advise with the Utah Water Users' Association and other organized water users' associations in the state.
- (7) To consider and make recommendations on behalf of the state of Utah of reclamation projects or other water development projects for construction by any agency of the state or United States and in so doing recommend the order in which projects shall be undertaken.
- (8) Nothing contained herein shall be construed to impair or otherwise interfere with the authority of the state engineer granted by Title 73, Water and Irrigation, except as herein specifically otherwise provided.

Performance Measures: none identified.

Ties to Statute: By statute (73-10), the Board of Water Resources is authorized to provide funds for water projects, define state water policy, and develop a State Water Plan for Utah.

Cloudseeding

Mission: Manage the waters of the state to minimize the effects of droughts and supplement mountain snowpack.

Goals: Optimize placement of cloud seeding equipment and seeding during the most promising conditions to increase winter snowpack.

Objectives: Weather modification is a feasible means of augmenting the natural water supply. Statistical analysis of the cloud seeding program since 1976 has shown an average increase in precipitation of fifteen percent. Technological advances and added reservoir storage capacity will hopefully enhance the benefit of this program in the future. Managing the waters of the state can help to minimize the effects of droughts and supplement mountain snowpack.

Performance Measures: Percentage of precipitation increase due to cloud seeding efforts - target = 7%.

Ties to Statute: This program is authorized in statute 73-15. Utah enacted weather modification legislation in 1973, and an operational cloud seeding program started in 1976. The field program, which usually extends from November to April, is funded jointly by the state and local water interests.

Construction

Mission: To develop Utah's water resources while encouraging the highest beneficial uses of water consistent with economic, social and environmental considerations.

Goals: Develop the state's water resources through:

1. Supporting the Board of Water Resources in developing water efficiency projects through the Revolving Loan Fund Program.
2. Providing technical and financial assistance to water users in developing water efficiency projects.
3. Developing Utah's allocation of the Bear River.
4. Developing the Lake Powell Pipeline Project (a portion of Utah's allocation of the Colorado River).

Objectives: The Water Development Program works closely with the Board of Water Resources in providing technical assistance for managing three revolving construction loan fund programs. Engineers and geologists do investigations of applications (feasibility reports) for proposed projects, manage construction, and provide technical assistance to the public. Engineers also design and provide construction oversight. This program assists Utah water users in the orderly and timely planning, conservation, development, utilization and protection of the water resources available for their use and also works with Water Conservancy Districts in the development of the Lake Powell Pipeline Project and Bear River Development.

Performance Measures: Water conservation and development projects funded (target = 15). Dam safety minimum standards upgrade projects funded per fiscal year (target =2).

Ties to Statute: Statutory authority is mandatory and is given for the three loan funds that this program manages in UCA 73-10.

Interstate Streams

Mission: To protect Utah's interstate streams: Colorado River and Bear River.

Goals: Protect Utah's rights to develop and use its entitlement to interstate waters.

Objectives: Be involved with meetings, discussions, negotiations, programs, studies and actions related to the Colorado and Bear rivers to ensure Utah is able to develop and use its allocations of those rivers. Because control of much of Utah's water resources is affected by the actions of other states and federal agencies, active participation in selected interstate and state/federal bodies is essential to protect Utah's interests. The Division director serves as Utah's Interstate Streams Commissioner and represents the state in the following organizations: Upper Colorado River Commission, Bear River Commission, Western States Water Council, Colorado River Basin Salinity Control Forum and Advisory Council, Glen Canyon Adaptive Management Work Group, Colorado River Management Group, and the Seven Colorado River Basin States Coordinating Committee. This program helps Protect Utah's right to develop and use waters of interstate streams and aquifer systems.

Performance Measures: none identified.

Ties to Statute: Authorized in statute UCA 73-10-3 and is mandatory.

Water Resources Planning

Mission: Plan for the state's future water needs and implement water management, conservation and development strategies.

Goals: Assist in the planning and development of facilities to meet water needs to continue municipal, industrial and agricultural growth by:

1. Providing projections of future water needs and how those needs will be met.
2. Inventorying municipal and industrial water use and water-related land use on a regular basis throughout the state.
3. Modeling river systems and watersheds throughout the state.
4. Conducting special studies to identify water supply and water use rates and find ways to meet future needs.
5. Have a statewide water conservation goal to reduce the 2000 per capita water use at least 25% by the year 2050.

6. Endorse and promote responsible water use through continued comprehensive water conservation and education programs.

Objectives: The Division of Water Resources is responsible to plan for and encourage the best use of the state's water resources to serve the physical, economic, environmental, and social needs of the people of Utah. This program maintains the State Water Plan and detailed river basin plans covering the state. In addition the division identifies future water needs and helps water entities meet those needs; implements water education/conservation programs that encourage wise municipal, industrial, agricultural, and environmental water use; promotes weather modification research; updates the State Water Plan and river basin plans; and maintains water supply and land use data for the entire state.

This program coordinates water resources planning between various governmental agencies; maintains streamflow, climatological, SNOTEL and water quality data; develops river basin models for state and local planning purposes and operational models for specific project feasibility studies. The state water plans describe water development opportunities and problems, and make recommendations for the future. Cooperative studies are performed with the U.S. Geological Survey, the federal Natural Resource Conservation Service, and Utah water user groups (such as cities and water districts) on a cost share basis. These studies provide data for the state water plan. Water conservancy districts and retailers must submit water conservation plans to the division as required by statute (73-10-32).

Performance Measures: Reduction of per capita M&I water use (target = 25%).

Ties to Statute: Statute requires water conservation planning by the Division. The Planning program was authorized in statute UCA 73-10-15 and is mandatory. The Water Conservation/Education program was authorized in statute UCA 73-10-32.

West Desert Operations

Mission: Construct, operate, and maintain the West Desert Pumping Project.

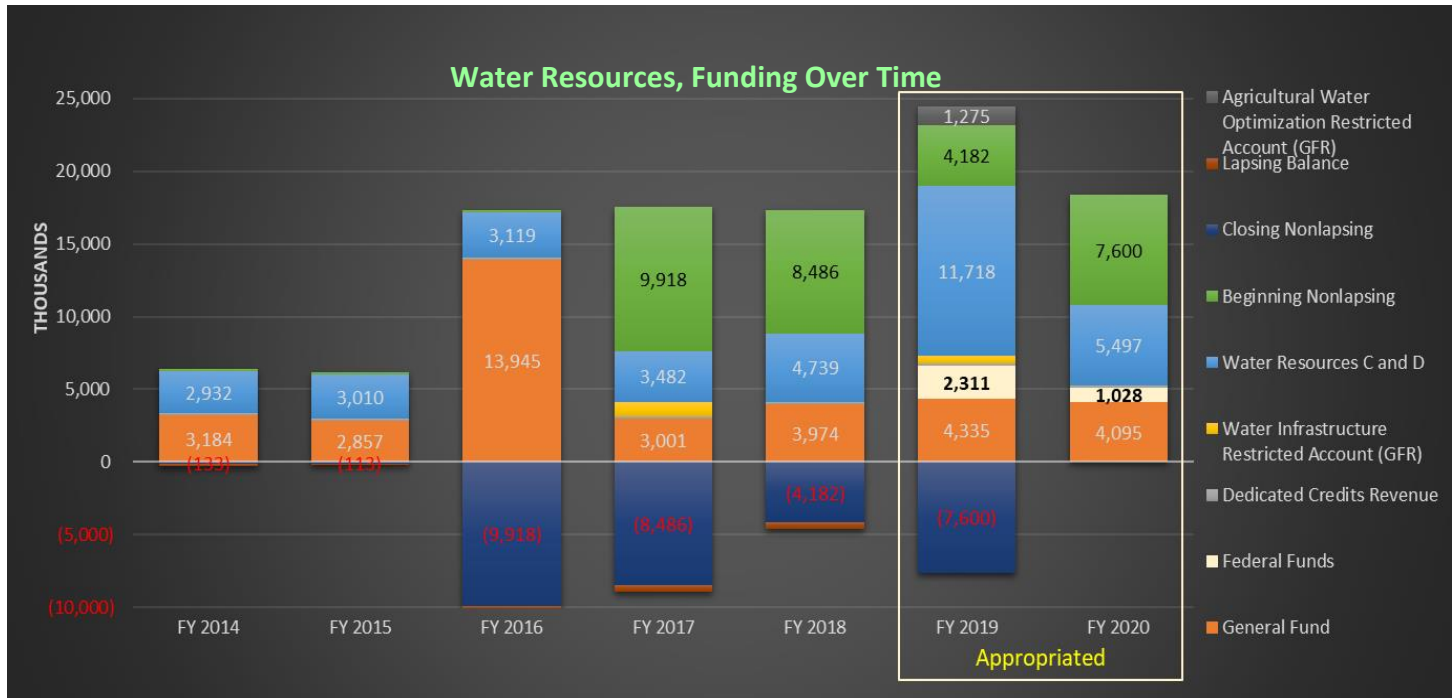
Goals: Maintain the West Desert Pumping Project. Should the need arise, to have the pumps available to help manage the waters of the Great Salt Lake to minimize the effects of flooding.

Objectives: The Division maintains the West Desert pumping facility through contracts with consultants and regular inspection and minor maintenance by staff. The West Desert Operations program funds the maintenance on the West Desert pumping plant. The pumps are part of a \$60 million Great Salt Lake flood-control project that began in 1986. The pumps can lower the peak level of the lake about one foot per year. The division is maintaining the pumping facility through contracts with consultants and contractors, and regular inspection by agency staff, so they will be ready for operation if needed

Performance Measures: none identified.

Ties to Statute: The pumps were authorized by the Legislature in statute UCA [73-23-3](#).

Funding

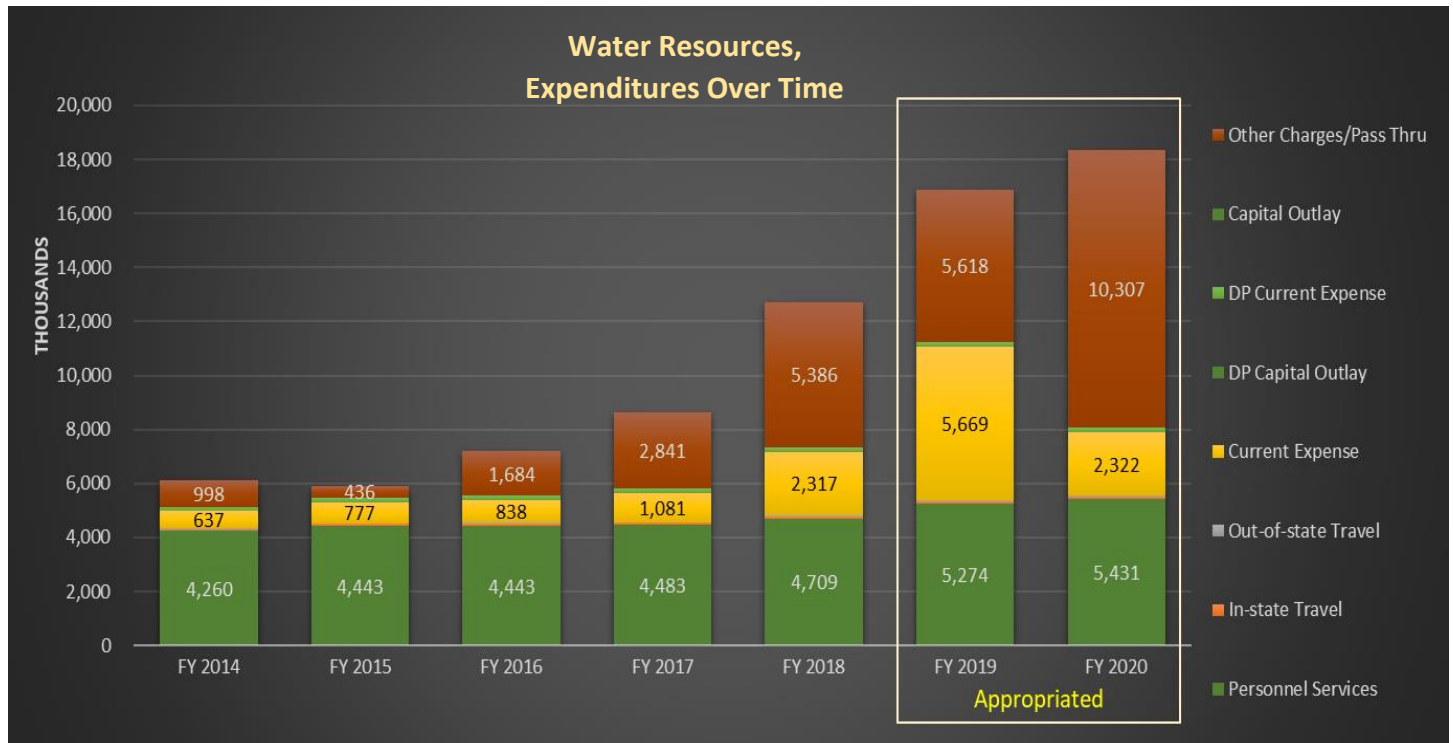


Major Funded Items Over Time

Item Name	Fund	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Dam Safety	General 1x			11,000,000				
Federal Grants	Federal		510,000	700,000	200,000	1,800,000	1,791,200	
H.B. 381, Staff Support - Agricultural Water Optimization Fund	Restricted 1x						1,275,000	
Huntington Creek Mitigation	General 1x	400,000						
Logan River Monitoring Observatory	General Fund							90,000
Lower Elevation Reservoir Study / Phase IV	General 1x					100,000		
Rebate for Water Reduction Devices	General Fund					750,000		
S.B. 251, Water Infrastructure Funding Amendments	Restricted 1x				1,000,000			

Smart Sprinkler Rebates	Restricted 1x					700,000		
State Facility Water Efficiencies	Restricted 1x					500,000		
Transp. Water Billing and Water Conservation	Restricted 1x							2,154,000
Water Banking	General 1x						400,000	
Water Conservation Advertising	Restricted 1x					300,000		
Water Conservation Efforts	Restricted				300,000			
Water Infrastructure Funding Amendments	Restricted 1x						500,000	
Water Resources - Dam Safety Upgrades	Restricted 1x						8,425,000	

Spending



The following table shows the budgeted and actual FTEs (full-time equivalents) in the division over time:

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Actual	Actual	Actual	Actual	Actual	Appr.	Appr.
Actual FTE	41	42	41	41	44	n/a	n/a
Budgeted FTE	47	47	47	47	47	49	50

The figure below lists the top vendors in FY 2018:

Vendor Name	Amount	%
FERRON CANAL AND RESERVOIR COMPANY	3,896,409	53.63%
CARBON CANAL COMPANY	724,241	9.97%
North Utah County Water Conservancy District	644,929	8.88%
CENTRAL UTAH WATER CONSERVANCY	417,858	5.75%
BOWEN COLLINS & ASSOCIATES INC	274,526	3.78%
R & R PARTNERS	240,747	3.31%
JORDAN VALLEY WATER CONSERVANCY DISTRICT	190,777	2.63%
U S GEOLOGICAL SURVEY JOINT FUNDING AGREEMENT	118,040	1.62%